

ABSTRACT

It is an object to provide a sealing structure for a solid-transferring screw installed inside a heating furnace 1 such as a material-leveling screw and a product-discharging screw, the sealing structure enabling the solid-transferring screw 3 to be lifted during the operation while airtightness of the heating furnace 1 is retained. Driving shaft 4 of the solid-transferring screw 3 passes through through-holes 6 formed in side walls 2 of the heating furnace 1 and is supported by liftable supporting devices 7 disposed at the outsides of the furnace. Sealing blocks 8 are attached on the outer edges 6a of the through-holes 6 to surround the periphery of the through-holes 6 at the outsides of the furnace. Sliding panels 9 are disposed at the outer sides of the sealing blocks 8 of the furnace and have sliding holes 10 for sliding the screw-driving shaft so that the driving shaft 4 extends through the sliding holes. The sliding panels 9 are brought into contact with the sealing blocks 8 via the sealing members 11 therebetween so that the sliding panels are slidable in the vertical direction.

FIG. 1(a)

STROKE

FIG. 1(b)

STROKE

FIG. 1(c)

STROKE

FIG. 2

FIG. 3

STROKE

FIG. 4

FIG. 5

FIG. 6

STROKE

FIG. 7

NITROGEN

FIG. 8

FIG. 9

STROKE